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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,005	12/08/2003	Toshiyasu Shirasuna	03500.015546.1	9109
5514 7590 12/27/2007 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			EXAMINER CROWELL, ANNA M	
			ART UNIT 1792	PAPER NUMBER
			MAIL DATE 12/27/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/729,005	<b>Applicant(s)</b> SHIRASUNA ET AL.	
	<b>Examiner</b> Michelle Crowell	<b>Art Unit</b> 1792	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 28 and 29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 28-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

Claims 28-29 are pending in the application. Claims 28-29 are rejected.

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 26, 2007 has been entered.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamura et al. (Japanese Patent Publication 11-319546) in view of Turlot et al. (U.S. 5,515,986).

Referring to Drawing 1, the abstract, and paragraph [0007], Okamura discloses a plasma treatment apparatus comprising a plurality of different movable reactors 1100 (i.e. capable of different processes, par. [0001]) each an evacuable inside where at least one treatment cylindrical substrate 1107 is set in; a high frequency power means 1111 for supplying high-frequency power into a selected movable reactor from the plurality of different movable reactors to cause glow discharge to take place in the movable reactor the high-frequency power supply means having a connecting portion for connecting with one of the movable reactors; an impedance regulation means 1110 provided on the side of a movable reactor in order to regulate the impedances of each reactor; and a moving means 1104 for moving the reactors, wherein each of the movable reactors and the high-frequency power supply means are provided separably and wherein one impedance regulation means is provided between a connecting portion of the high-frequency power supply means on the exterior of the moveable reactor and an electrode on the interior of the moveable reactor, wherein the high-frequency power supply means is configured to individually and detachably connect to a movable reactor (Drawings 1-2).

Okamura et al. fail to teach that one impedance matching circuit is provided to each of the reactors that allows for different impedance (different plasma treatments) for each of the reactors.

Referring to Figures 2a-2d, 5c, column 3, line 60 –column 4, line 20, and column 6, line 62-column 7, line 21, Turlot et al. teaches a plasma treatment apparatus impedance matching circuit is provided to each of the reactors (inductors in Fig. 5c). Additionally, each inductor is capable of providing a different impedance which results in different chamber conditions (Note. Different chamber conditions results in different process treatments) provided on the exterior of each reactor 20. By using an impedance matching circuit for each reactor, the process conditions may be adjusted for each reactor (col. 7, lines 2-9). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide each reactor of Okamura et al. with a plurality of impedance matching circuits as taught by Turlot et al. in order to adjust the process conditions for each reactor.

Furthermore, with respect to the limitation of each movable reactor having an impedance different from that of the other movable reactors due to a different shape of the cylindrical substrate in each movable reactor and each reactor conducting a different plasma treatment, the apparatus of Okamura et al. in view of Turlot et al. (specifically Turlot et al.) teaches that inductors allow different chamber conditions or treatments to occur. In addition, since the impedance can be varied, one can adjust the impedance based on any parameter (i.e. shape of the substrate or different plasma treatment). Therefore, since the claims are directed to an apparatus, this limitation is considered an intended use limitation and a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Thus, as stated above, the apparatus of Okamura et al. in view of Turlot et

al. is capable of having a different impedance due to a different shape of the cylindrical substrate or performing the claimed different treatment for each reactor.

With respect to claim 13, Okamura et al. discloses that the substrate is an electrophotographic photosensitive member (abstract and par.[0007]). Additionally, it should be noted that the type of substrate (i.e. electrophotographic photosensitive member) used in apparatus claims is not given patentable weight (In re Young, 75 F.2d 996, 25 USPQ 69 (CCPA 1935) (as restated in In re Otto, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963))).

#### *Response to Arguments*

6. Applicant's arguments filed October 26, 2007 have been fully considered but they are not persuasive.

Applicant has argued that in Turlot et al. the shape of the substrates are the same and hence the impedance is the same. However, as discussed above in Turlot et al. each inductor is capable of providing a different impedance which results in different chamber conditions (Note. Different chamber conditions results in different process treatments). In addition, since an impedance matching circuit is provided for each reactor, the process conditions may be adjusted for each reactor (col. 7, lines 2-9). Moreover, since the impedance can be varied, one can adjust the impedance based on any parameter (i.e. shape of the substrate or different plasma treatment). Furthermore, in column 3, lines 53-59 and column 6, lines 43-52, Turlot et al. clearly states that different processes can be performed in the chambers. Therefore, since the claims are directed to an apparatus, this limitation is considered an intended use limitation and a recitation of the intended use of the claimed invention must result in a

structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Thus, as stated above, the apparatus of Okamura et al. in view of Turlot et al. is capable of having a different impedance due to a different shape of the cylindrical substrate or performing the claimed different treatment for each reactor. Thus, Okamura et al. in view of Turlot et al. satisfy the claimed requirement.

Applicant has argued that Turlot et al. electric power is simultaneously supplied from one high frequency power source to a plurality of reactors. It should be noted that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the instant case, Okamura discloses a high frequency power means 1111 for supplying high-frequency power into a selected movable reactor. Turlot et al. was simply applied for the teaching that it is known in the art to provide an impedance matching circuit to each of the plurality of the different reactors in order to cause different impedances to each of the plurality of different reactors. Thus, Okamura et al. in view of Turlot et al. satisfy the claimed requirement.

Applicant has argued that Okamura fails to teach one impedance matching circuit is provided to each reactor. It should be noted that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of

references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the instant case, Turlot et al. teaches that it is known in the art to provide an impedance matching circuit to each of the plurality of the different reactors in order to cause different impedances to each of the plurality of different reactors. Okamura et al. discloses a plurality of different movable reactors, a high-frequency power supply means, an impedance matching circuit, and a moving means. Thus, Okamura et al. in view of Turlot et al. satisfy the claimed requirement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle Crowell whose telephone number is (571) 272-1432. The examiner can normally be reached on M-Th (9:30 -6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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